Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 2026

Comparative effects of Bowen therapy and tennis ball technique on pain and functional disability in patients with thoracic myofascial pain syndrome

Protocol summary

Study aim
To compare the effects of Bowen therapy and tennis ball technique on pain and functional disability in patients with thoracic myofascial pain syndrome

Design
This study will be Randomized Clinical Trial, parallel-group, triple blinded

Settings and conduct
The trial would be conducted in District Headquarters Hospital Kasur. it would be triple blinded, as the patients, assessor and analyzer would be blinded.

Participants/Inclusion and exclusion criteria
Inclusion criteria: Both male and female patients; Age group 18-40 years old; Only patients reporting pain on numeric pain rating scale above 4; Individuals fulfilling the criteria of five major(spontaneous pain, palpable taut band, localized sharp tenderness, referred pain, decreased ROM) and at least one out of three minor signs (pain on pressure, local twitch response (LTR), decrease in pain by muscle stretching) of myofascial pain syndrome will be included. Exclusion criteria: Patients with fibromyalgia; Individuals with any other deformity like scoliosis; Participant taking anti-inflammatory drugs will be excluded.

Intervention groups
Intervention group: group A will receive Bowen therapy, the position of ease will be produced and then small moves at varying pressure will be applied. The treatment will include light, cross-fibre manoeuvres of muscle, tendon with no forceful manipulation. one session will take 15-20 minutes. Intervention group: group B will receive tennis ball technique, position of ease either standing or lying will be achieved, then placing a tennis ball between the body and the wall or floor, Rolling the ball across these areas for a short time will relax the knot. it will take 10 -15 minutes.

Main outcome variables
Pain; Functional Disability

General information

Reason for update
trial completed

Acronym
RCT

IRCT registration information
IRCT registration number: **IRCT20190717044238N7**
Registration date: **2023-03-19, 1401/12/28**
Registration timing: **registered_while_recruiting**

Last update: **2023-08-19, 1402/05/28**
Update count: **1**

Registration date
2023-03-19, 1401/12/28

Registrant information

Name
Fareeha Amjad

Name of organization / entity
The University of Lahore

Country
Pakistan

Phone
+92 42 99200600

Email address
fari_fairy22@yahoo.com

Recruitment status
Recruitment complete

Funding source

Expected recruitment start date
2023-03-06, 1401/12/15

Expected recruitment end date
2023-06-06, 1402/03/16

Actual recruitment start date

2023-03-01, 1401/12/10

Actual recruitment end date

2023-06-09, 1402/03/19

Trial completion date

2023-06-09, 1402/03/19

Scientific title

Comparative effects of Bowen therapy and tennis ball technique on pain and functional disability in patients with thoracic myofascial pain syndrome

Public title

Bowen therapy and tennis ball technique in patients with thoracic myofascial pain syndrome

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria:

Both male and female patients Age group 18-40 years Only patients reporting pain on numeric pain rating scale above 4 Individuals fulfilling the criteria of five major(spontaneous pain, palpable taut band, localized sharp tenderness, referred pain, decreased ROM) and at least one out of three minor signs (pain on pressure, local twitch response (LTR), decrease in pain by muscle stretching) of myofascial pain syndrome will be included.

Exclusion criteria:

Patients with fibromyalgia Individuals with any other deformity like scoliosis. Participant taking anti-inflammatory drugs will be excluded

Age

From **18 years** old to **40 years** old

Gender

Both

Phase

3

Groups that have been masked

- Participant
- Outcome assessor
- Data analyser

Sample size

Target sample size: **30**

Actual sample size reached: **30**

Randomization (investigator's opinion)

Randomized

Randomization description

As per the inclusion and exclusion criteria of the study, patients will be divided into two grouos randomly by Random Number Generator table.

Blinding (investigator's opinion)

Triple blinded

Blinding description

The patients taking part in the study would be blinded, they would not be able to know the group they have been allocated to, either Bowen therapy or tennis ball technique, The assessor of the outcomes would be blinded and lastly, our data analyzer would be blinded too, making it a triple blind clinical trial.

Placebo

Not used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Research and Ethical Review Committee

Street address

Riphah Quaid e Azam Campus,28-M Quaid-e-Azam industrial Estate, Kot lakhpat,Lahore

City

Lahore

Postal code

54000

Approval date

2023-01-02, 1401/10/12

Ethics committee reference number

REC/RCR & AHS/23/0111

Health conditions studied

1

Description of health condition studied

Thoracic myofascial pain syndrome

ICD-10 code

M70.9

ICD-10 code description

Unspecified soft tissue disorder related to use, overuse and pressure

Primary outcomes

1

Description

Pain

Timepoint

Total intervention protocol will be given for four weeks of duration, 3 sessions per week with total 12 sessions. Outcomes wiil be assessed at baseline, at the end of 2nd week (6th session) and at the end of the 4th week (12th session)

Method of measurement

Numeric Pain Rating Scale (NPRS)

Secondary outcomes

1

Description

Functional Disability

Timepoint

Total intervention protocol will be given for four weeks of

duration, 3 sessions per week with total 12 sessions. Outcomes wiil be assessed at baseline, at the end of 2nd week (6th session) and at the end of the 4th week (12th session)

Method of measurement
Pain Disability Questionnaire

Intervention groups

1

Description
Intervention group: group A will receive Bowen therapy, the position of ease will be produced and then small moves at varying pressure will be applied.The treatment will include light, cross-fibre manoeuvres of muscle, tendon with no forceful manipulation. one sessionwill take 15-20 minutes

Category
Treatment - Other

2

Description
Intervention group: group B will receive tennis ball technique, position of ease either standing or lying will be achieved, then placing a tennis ball between the body and the wall or floor, Rolling the ball across these areas for a short time will relax the knot. it will take 10 -15 minutes.

Category
Treatment - Other

Recruitment centers

1

Recruitment center

Name of recruitment center
DHQ hospital Kasur

Full name of responsible person
Dr. Anum Sarwar

Street address
Muslim town Lahore

City
Lahore

Postal code
54700

Phone
+92 333 6471197

Email
anumsarawar11@gmail.com

Sponsors / Funding sources

1

Sponsor

Name of organization / entity
Ripah international university Lahore

Full name of responsible person
Dr. Fareeha Amjad

Street address
Ripah international university Maddar e Millat Road, Quaid e Azam industrial Estate Lahore, Punjab

City
lahore

Postal code
54000

Phone
+92 334 3372779

Email
fareeha.amjad@ripah.edu.pk

Grant name

Grant code / Reference number

Is the source of funding the same sponsor organization/entity?
No

Title of funding source
Riphah International University Lahore

Proportion provided by this source
100

Public or private sector
Private

Domestic or foreign origin
Domestic

Category of foreign source of funding
empty

Country of origin

Type of organization providing the funding
Academic

Person responsible for general inquiries

Contact

Name of organization / entity
Riphah International University Lahore

Full name of responsible person
Afsheen Khalid

Position
student

Latest degree
Master

Other areas of specialty/work
Physiotherapy

Street address
Khalid Mahmood House opposite Javaid Abdullah Khan Dhera, Kasur

City
Kasur

Province
Punjab

Postal code
55050

Phone
+92 324 4558262

Email
afsheenkhalid11@gmail.com

Person responsible for scientific inquiries

Contact

Name of organization / entity

Riphah International University Lahore

Full name of responsible person
Dr. Fareeha Amjad

Position
Assistant Professor

Latest degree
Master

Other areas of specialty/work
Physiotherapy

Street address
Riphah Quaid e Azam Campus 28-M Quaid-e-Azam industrial Estate, kot lakhpat,Lahore

City
Lahore

Province
Punjab

Postal code
54000

Phone
+92 334 3372779

Email
fari_fairy22@yahoo.com

Person responsible for updating data

Contact

Name of organization / entity
Riphah International University Lahore

Full name of responsible person
Afsheen Khalid

Position
Student

Latest degree
Master

Other areas of specialty/work
Physiotherapy

Street address
Khalid Mahmood House opposite Javiad Abdullah Khan Dhera, Kasur

City
Kasur

Province
Punjab

Postal code
55050

Phone
+92 324 4558262

Email
afsheenkhalid11@gmail.com

Sharing plan

Deidentified Individual Participant Data Set (IPD)
Yes - There is a plan to make this available

Study Protocol
Yes - There is a plan to make this available

Statistical Analysis Plan
No - There is not a plan to make this available

Informed Consent Form
Yes - There is a plan to make this available

Clinical Study Report
Yes - There is a plan to make this available

Analytic Code
Not applicable

Data Dictionary
Yes - There is a plan to make this available

Title and more details about the data/document
Consent form in its original format with no information about any participant study protocol- how the intervention was given to both groups

When the data will become available and for how long
Data will be available after the completion of research at the end of 2023

To whom data/document is available
People working in an academic and clinical setting can have access to the above mentioned information/documents

Under which criteria data/document could be used
Data can be only used for Research Purposes

From where data/document is obtainable
Data can be asked for at the following email address: afsheenkhalid11@gmail.com

What processes are involved for a request to access data/document
One can ask for data at the given email address and it would be provided after knowing the general implications of sharing that particular data.

Comments